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Surveillance Data from Swimming Pool Inspections — Selected States and Counties, United States, May–September 2002

Swimming is the second most popular exercise activity in the United States, with approximately 360 million annual visits to recreational water venues (*1*). This exposure increases the potential for the spread of recreational water illnesses (RWIs) (e.g., cryptosporidiosis, giardiasis, and shigellosis). Since the 1980s, the number of reported RWI outbreaks has increased steadily (*2*). Local environmental health programs inspect public and semipublic pools periodically to determine compliance with local and state health regulations. During inspections for regulatory compliance, data pertaining to pool water chemistry, filtration and recirculation systems, and management and operations are collected. This report summarizes pool inspection data from databases at six sites across the United States collected during May 1–September 1, 2002. The findings underscore the utility of these data for public-health decision making and the need for increased training and vigilance by pool operators to ensure high-quality swimming pool water for use by the public.

Data from 22,131 pool inspections were collected from the Allegheny County Department of Health, Pennsylvania (n = 713); the Florida Department of Health, Bureau of Water Programs (n = 19,604); the Los Angeles County Department of Health Services, California (n = 1,606); the St. Louis County Department of Public Health, Minnesota (n= 34); the City of St. Paul Office of License, Inspections, and Environmental Protection, St. Paul, Minnesota (n = 56); and the Wyoming Department of Agriculture (n = 118). The sites selected were a convenience sample of pool inspection programs contacted that had computerized data available. Because of data incompatibilities, some inspections conducted at some sites might not have been part of the final analysis. The data were merged into a single SAS database, including date of inspection, pool type, water-chemistry data (e.g., free chlorine and pH levels), filtration and recirculation system data (e.g., operating filters and approved water turnover rates), and policy and management data (e.g., record keeping and pool operator training). A violation was noted when an inspection item was not in compliance with state or local swimming pool codes. Other inspection items (e.g., support facilities and injury control) were not addressed in this study.

A total of 21,561 violations of pool codes were documented during the 22,131 inspections; the majority (67.5%) occurred in pools for which no pool type (e.g., hotel/motel) was specified (Table 1). Approximately one half (45.9%) of inspections indicated no violations. The majority of inspections (54.1%) found one or more violations (median: one; range: one to 12), and 8.3% of inspections resulted in immediate closure of the pool pending corrections of serious violation items (e.g., lack of disinfectant). Of total violations, water-chemistry violations comprised 38.7%, followed by filtration and recirculation system (38.6%), and policy and management (22.7%). For the 24.3% of inspections for which pool type could be ascertained (typed inspections), a range of violations occurred (Table 2). For typed inspections collecting free chlorine data, 4.5%–18.4% reported violations. The highest percentage (18.4%) of violations occurred in child wading pools, medical/therapy pools (14.3%), and hotel/motel

INSIDE

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pools (14.0%). In typed inspections, the percentage of total violations attributable to pH infractions ranged from 4.7% to 16.7%, with the highest percentage occurring in child wading pools. For child wading pools, 8% had coincident free chlorine and pH violations. Filtration and recirculation system violations occurred in 34.0%–76.8% of typed inspections, with municipal pools having the greatest percentage. In sites where training was required, inspections demonstrated that many pool operators did not have appropriate certification (0–35.7%), with apartment/condominium complexes having the highest percentage of violations.

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Editorial Note: The increasing number of reported pool-associated outbreaks of gastroenteritis underscores the need for proper pool maintenance as an important public health intervention (*1,2*). Approximately one fourth of these outbreaks involved chlorine-sensitive pathogens (e.g., *Escherichia coli* O157:H7 and *Shigella* spp.), which causally implicates inadequate pool maintenance and disinfection. Pool inspections are the primary means of ensuring appropriate pool operation, but resources generally allow only one to three annual inspections of each pool. As a result, pool operators are responsible for maintaining their pools with minimal public health oversight. This report documents the first attempt to analyze aggregated pool inspection data, which indicate that although some pools are well-maintained, such an infrequent inspection process cannot ensure compliance with state and local pool regulations.

Proper pool maintenance requires a combination of good water quality, functioning filtration and recirculation equipment, and well-trained staff. In this study, several violations that could facilitate the spread of RWIs were documented, with 45.9% of inspections documenting no violations. The majority of violations involved water-quality parameters (e.g., free chlorine and pH levels) or filtration and recirculation system parameters.

The interaction of pH and free chlorine levels is critical in determining the effectiveness of chlorine as a disinfectant, and effective monitoring can ensure that the optimum free

TABLE 1. Number and percentage of pool inspections* having specific violations of state and/or local health regulations, by type of violation and pool type — selected states and counties, United States, May–September 2002

Type of violation	Known pool type† No.	(%)	Unknown pool type§ No.	(%)	Total¶ No.	(%)
Water chemistry						
Free chlorine level	700	(13.1)	1,760	(10.5)	**2,460**	**(11.1)**
pH	502	(9.4)	1,216	(5.5)	**1,718**	**(7.8)**
Other water chemistry**	1,153	(21.4)	2,616	(15.6)	**3,769**	**(17.0)**
Filtration/Recirculation system††	2,230	(41.4)	4,374	(26.2)	**6,604**	**(29.9)**
Policy/Management						
Test kit	160	(3.0)	580	(3.5)	**740**	**(3.4)**
Pool operations training	589	(27.6)	15	(5.6)	**604**	**(25.1)**
Record keeping	669	(13.9)	2,853	(17.1)	**3,522**	**(16.5)**
Pool licensed	22	(3.8)	4	(2.9)	**26**	**(3.6)**

* Numbers reported are for those sites collecting data on the specified violation. Although 22,131 inspections were conducted, the number of inspections collecting data for each specific violation (denominator) varied widely because of a lack of uniform data collection among sites. In addition, each aggregate variable might include multiple violations and single pool inspections could have multiple violations. As a result, percentage totals do not add to 100%.

† Range of inspections collecting violation data for each pool type (R) = 573–5,385.

§ R = 140–16,746.

¶ R = 713–22,131.

** Aggregate variable. A positive could include one or more violations in any area (e.g., cyanurate levels, algae, bacterial quality, disinfectant/pH chemical feeders, total alkalinity, and calcium hardness).

†† Aggregate variable. A positive could include one or more violations in any area (e.g., backwash, cross connections, filter, flow meter, pressure gauges, recirculation system, turnover, and turbidity).

chlorine and pH levels are maintained to prevent infectious disease transmission. The coincident occurrence of pH and chlorine violations indicates a substantial lack of training among pool operators, particularly those at apartment/condominium complexes. The number of overall violations highlights the need for increased vigilance in ensuring pool staff training, including information about RWI transmission, and the potential benefits of mandating training for pool operators throughout the United States. This poses a challenge for some pool types (e.g., apartment/condominium complexes and hotels/motels) because of high staff turnover or part-time operators. Providing pool operators with more targeted education, maintenance suggestions, and forms for simple monitoring of free chlorine and pH levels might improve public health protection at these facilities.

Chlorine and pH violations were highest in wading pools, which are used by younger children, including those who wear diapers. Young children, who often swallow water indiscriminately and have an increased chance of contaminating the pool water fecally, are at increased risk for severe illness if infected. In addition, the shallow depth and relatively low volume of water in these wading pools might lead to more rapid depletion of disinfectant by ultraviolet light and higher organic contamination by the children. Wading pools require increased vigilance and testing to maintain safe disinfectant levels. Pool operators need to be aware that every time they have inadequate disinfection in a pool, they increase the risk for spreading RWIs whenever an infected swimmer contaminates the pool.

The findings in this report are subject to at least two limitations. First, database structures for each site differed, the types of data collected and entered varied, and the data were not standardized across states or counties, thereby reducing the generalizability of the data. Second, because free chlorine levels were not entered in the database, the percentage of violations caused by low chlorine levels could not be ascertained and the range of chlorine levels recorded could not be analyzed.

Although the lack of uniform data collection among sites limited the analysis and usability of the data, this report underscores the potential usefulness of uniform collection of these data in a computerized format that can be analyzed routinely and used for full evaluation of inspection programs. CDC and its partners are developing systems-based guidance on pool operation and implementation of uniform methods for data collection and analysis. These data can then be used in the training of inspectors and operators, planning and resource allocation, and documenting trends related to particular regulatory changes and interventions.

Poor pool maintenance and operation, untrained pool staff, the potential presence of the chlorine-resistant pathogen *Cryptosporidium parvum* (*2,3*), and a swimming public that is ill-informed about the potential for spreading RWIs in the pool increase the complexity of any proposed prevention plan. Swimmer education should play a critical role in preventing the spread of RWIs. Swimmers and home pool owners should be informed that they should 1) not swim when ill with diarrhea, 2) not swallow pool water, and 3) practice good hygiene when using a pool (e.g., frequent restroom breaks, appropriate diaper changing, and hand washing). Additional information about reducing the spread of RWIs is available at http://www.healthyswimming.org.

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TABLE 2. Number and percentage of pool inspections* having specific violations of state and/or local health regulations, by type of violation and pool type — selected states and counties, United States, May–September 2002

	Hotel/Motel†		Condominiums/ Apartments§		School/ University¶		Private club**		Wading/ Children's††	
Type of violation	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Water chemistry										
Free chlorine level	120	(14.0)	386	(12.9)	7	(8.8)	62	(13.1)	98	(18.4)
pH	91	(10.5)	252	(8.4)	4	(5.0)	29	(6.1)	89	(16.7)
Other water chemistry¶¶¶	158	(18.0)	787	(26.4)	23	(28.4)	67	(14.1)	71	(13.2)
Filtration/Recirculation system****	326	(37.1)	1,207	(40.4)	40	(49.4)	246	(51.7)	209	(39.1)
Policy/Management										
Test kit	42	(4.8)	83	(2.8)	2	(2.5)	5	(1.1)	18	(3.4)
Pool operations training	18	(14.1)	539	(35.7)	4	(7.6)	21	(9.8)	7	(6.0)
Record keeping	105	(12.7)	424	(15.0)	4	(6.3)	48	(15.6)	61	(13.1)
Pool licensed	0		7	(4.2)	1	(5.6)	10	(6.0)	4	(5.8)

TABLE 2. (*Continued*) Number and percentage of pool inspections* having specific violations of state and/or local health regulations, by type of violation and pool type — selected states and counties, United States, May–September 2002

	Water parks§§		Medical/ Therapy¶¶		Municipal***		Camp grounds†††		Total§§§	
Type of violation	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Water chemistry										
Free chlorine level	15	(7.8)	2	(14.3)	5	(4.5)	5	(5.0)	**700**	**(13.1)**
pH	9	(4.7)	2	(13.3)	15	(13.6)	11	(11.1)	**502**	**(9.4)**
Other water chemistry¶¶¶	7	(3.6)	8	(47.1)	9	(8.0)	23	(22.3)	**1,153**	**(21.4)**
Filtration/Recirculation system****	70	(36.5)	11	(64.7)	86	(76.8)	35	(34.0)	**2,230**	**(41.4)**
Policy/Management										
Test kit	0		2	(12.5)	4	(3.6)	4	(3.9)	**160**	**(3.0)**
Pool operations training	0		0		0		0		**589**	**(27.6)**
Record keeping	6	(3.8)	3	(17.6)	4	(8.9)	14	(13.9)	**669**	**(13.9)**
Pool licensed	0		N/A		0		0		**22**	**(3.8)**

* Numbers reported are for those sites collecting data on the specified violation. Although a total of 5,385 inspections were conducted, the number of inspections collecting data for each specific violation (denominator) varied widely because of a lack of uniform data collection among sites. In addition, each aggregate variable might include multiple violations, and single pool inspections could have multiple violations. As a result, percentages do not add to 100%.

† Range of inspections collecting violation data for each pool type (R) = 51–878.

§ R = 165–2,987.

¶ R = 18–81.

** R = 168–476.

†† R = 69–539.

§§ R = 33–192.

¶¶ R = 6–17.

*** R = 45–112.

††† R = 2–103.

§§§ R = 573–5,385.

¶¶¶ Aggregate variable. A positive could include one or more violations in any area (e.g., cyanurate levels, algae, bacterial quality, disinfectant/pH chemical feeders, total alkalinity, and calcium hardness).

**** Aggregate variable. A positive could include one or more violations in any area (e.g., backwash, cross connections, filter, flow meter, pressure gauges, recirculation system, turnover, and turbidity).

Update: Influenza Activity — United States and Worldwide, 2002–03 Season, and Composition of the 2003–04 Influenza Vaccine

In collaboration with the World Health Organization (WHO), its collaborating laboratories, state and local health departments, health-care providers, and vital statistic registries, CDC conducts surveillance to monitor influenza activity and to detect antigenic changes in the circulating strains of influenza viruses. During the 2002–03 influenza season, influenza A (H1)*, A (H3N2), and B viruses co-circulated in the Northern Hemisphere. Human infections with avian influenza A (H5N1) and A (H7N7) viruses were reported in Hong Kong and the Netherlands, respectively. In the United States, the 2002–03 influenza season was mild; influenza A (H1) and B viruses circulated widely, and the predominant virus varied by region and time of season. This report summarizes influenza activity in the United States† and

* Includes both the A (H1N1) and A (H1N2) influenza virus subtypes.

† As of May 22, 2003.

worldwide during the 2002–03 influenza season and describes the composition of the 2003–04 influenza vaccine.

United States

The percentage of respiratory specimens testing positive for influenza and the proportion of outpatient visits to physicians for influenza-like illness (ILI)[§] began to increase in mid-January and peaked during early February. Both influenza A (H1) and B viruses circulated widely this season, with some regions reporting more influenza A viruses than influenza B viruses and others reporting more B viruses than A viruses. Nationally, influenza B viruses predominated during the first half of the season, but after the week ending February 1, influenza A viruses were reported more frequently than influenza B viruses.

During September 29, 2002–May 17, 2003, the WHO and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories in the United States tested 94,966 specimens for influenza viruses, of which 11,027 (11.6%) were positive. Of these, 6,324 (57%) were influenza A viruses, and 4,703 (43%) were influenza B viruses. Among the influenza A viruses, 3,381 (53%) were subtyped; of these, 2,534 (75%) were influenza A (H1) viruses, and 847 (25%) were influenza A (H3N2) viruses. Influenza A viruses were reported more frequently (range: 58%–86%) than influenza B viruses in the New England, East North Central, Pacific, Mountain, and Mid-Atlantic regions, and influenza B viruses were reported more frequently (range: 53%–78%) than influenza A viruses in the West North Central, West South Central, South Atlantic, and East South Central regions. The proportion of specimens testing positive for influenza first increased to ≥10% during the week ending January 18 (week 3), peaked at 25% during the week ending February 8 (week 6), and declined to <10% during the week ending April 5 (week 14). The peak percentage of specimens testing positive for influenza during the previous three seasons (1999–00, 2000–01, and 2001–02) ranged from 23% to 31% (*1*; CDC, unpublished data, 2003).

CDC has antigenically characterized 626 influenza viruses submitted by U.S. laboratories since September 29, 2002: 267 influenza A (H1) viruses, 105 influenza A (H3N2) viruses, and 254 influenza B viruses. Of the 267 influenza A (H1) viruses, 193 (72%) had an N1 neuraminidase, 66 (25%) had an N2 neuraminidase, and the neuraminidase typing for eight (3%) H1 viruses is pending. The hemagglutinin proteins of all 267 influenza A (H1) viruses were similar antigenically to the hemagglutinin of the vaccine strain A/New Caledonia/20/99 (H1N1). Of the 105 influenza A (H3N2) isolates that have been characterized, 98 (93%) were similar to A/Panama/2007/99, the H3N2 component of the 2002–03 influenza vaccine, and seven (7%) had reduced titers to ferret antisera produced against A/Panama/2007/99. Of the 254 influenza B viruses that have been characterized, 253 (99%) belonged to the B/Victoria lineage and were similar antigenically to the vaccine strain B/Hong Kong/330/01, and one (1%) belonged to the B/Yamagata lineage and was similar to B/Shizuoka/15/01, a B/Sichuan/379/99-like virus.

During the week ending December 28, 2002 (week 52) and each consecutive week during the weeks ending January 25–March 8, 2003 (weeks 4–10), the weekly percentage of patient visits for ILI to U.S. sentinel providers exceeded baseline levels (0–1.9%)[¶]. The peak percentage of patient visits for ILI was 3.2% during the week ending February 8 (week 6). During the previous three seasons (1999–00, 2000–01, and 2001–02), the peak percentage of patient visits for ILI ranged from 3.2% to 5.7% (*1*; CDC, unpublished data, 2003).

On the basis of data reported by state and territorial epidemiologists, influenza activity peaked during the week ending February 22 (week 8), when 35 states reported regional or widespread influenza activity[**]. One or more states reported regional influenza activity each week during the weeks ending October 26, 2002–May 17, 2003. Widespread influenza activity was reported by one or more states for the weeks ending December 7–21, 2002 (weeks 49–51), and for all but 1 week during the weeks ending January 18–April 19, 2003 (weeks 3–16). The peak number of states reporting widespread or regional activity during the previous three seasons ranged from 38 to 44 states.

As measured by the 122 Cities Mortality Reporting System, the percentage of deaths in the United States attributed to pneumonia and influenza (P&I) did not exceed the epidemic threshold[††] during the 2002–03 season. During the

[§] Defined as temperature of ≥100° F (≥37.8° C) and either cough or sore throat in the absence of a known cause other than influenza.

[¶] The national baseline was calculated as the mean percentage of patient visits for ILI during noninfluenza weeks plus two standard deviations. A noninfluenza week is a week during which <10% of specimens tested positive for influenza. Wide variability in regional data precludes calculating region-specific baselines and makes it inappropriate to apply the national baseline to regional data.

[**] Levels of activity are 1) *no activity*, 2) *sporadic*—sporadically occurring ILI or laboratory-confirmed influenza with no outbreaks detected, 3) *regional*—outbreaks of ILI or laboratory-confirmed influenza in counties with a combined population of <50% of a state's total population, and 4) *widespread*—outbreaks of ILI or laboratory-confirmed influenza in counties with a combined population of ≥50% of a state's total population.

[††] The expected seasonal baseline proportion of P&I deaths reported by the 122 Cities Mortality Reporting System is projected by using a robust regression procedure in which a periodic regression model is applied to the observed percentage of deaths from P&I during the previous 5 years. The epidemic threshold is 1.654 standard deviations above the seasonal baseline (*1*).

previous three seasons, the number of consecutive weeks during which the percentage of deaths attributed to P&I exceeded the epidemic threshold ranged from 0 to13 weeks.

Worldwide

During October 2002–May 2003, influenza A and B viruses co-circulated in Asia, Europe, and North America. In Europe and Asia, the majority of influenza A viruses subtyped were A (H3N2), but A (H1) was the most frequently reported influenza A subtype in North America. Within countries or regions, the predominant virus type or subtype varied and changed frequently as the season progressed.

In Europe, influenza A (H3N2) viruses predominated in the Czech Republic, Germany, Italy, the Netherlands, Poland, Russia, and Switzerland; in Asia, these viruses predominated in Japan, Hong Kong, and the Republic of Korea. Influenza A (H3N2) viruses also were reported in Africa (Egypt, Madagascar, Senegal, and Tunisia), other countries in Asia (China, Guam, India, Israel, Malaysia, the Philippines, Singapore, Thailand, and Turkey), other countries in Europe (Bulgaria, France, Norway, Portugal, Romania, and Slovakia), Latin America (Argentina, Brazil, French Guiana, Mexico, and Peru), and Oceania (Australia).

Influenza A (H1) viruses predominated in Canada and Mexico. In the United States, influenza A (H1) and B viruses were reported at approximately the same frequency. Influenza A (H1) viruses also were reported in Africa (Senegal), Asia (China, Hong Kong, and Israel), Europe (the Czech Republic, France, Italy, the Netherlands, Norway, Poland, Russia, Slovakia, Spain, and Switzerland), and Latin America (Argentina, Brazil, and Peru). Countries reporting unsubtyped influenza A viruses include Belgium, Chile, Lithuania, and Slovenia.

Influenza B viruses predominated in Belgium, the United Kingdom, France, Portugal, Romania, and Spain. Influenza B viruses also were reported in Africa (Egypt, Madagascar, Morocco, and Tunisia), Asia (India, China, Guam, Japan, Hong Kong, Israel, the Philippines, Thailand, and Taiwan), Europe (the Czech Republic, Germany, Italy, the Netherlands, Norway, Poland, Russia, Slovakia, Slovenia, and Switzerland) and Latin America (Argentina, Brazil, Chile, French Guiana, Mexico, and Peru).

In February 2003, two human infections with avian influenza A (H5N1) virus were confirmed in a family of Hong Kong residents who had traveled recently to Fujian Province in mainland China (*2*). The first patient, a boy aged 9 years, was hospitalized in Hong Kong and recovered; the second patient, the boy's father, died in a Hong Kong hospital on February 17. Other family members had respiratory symptoms, and the boy's sister, aged 8 years, died while the family was in mainland China. The cause of her death and of the other respiratory illnesses in the family is not known. As of June 4, 2003, no additional human cases of influenza A (H5N1) infection had been identified in Hong Kong or elsewhere.

Since the end of February 2003, the Netherlands has reported outbreaks of highly pathogenic avian influenza A (H7N7) in poultry on several farms. Subsequently, H7N7 infections have been reported among pigs and humans in the Netherlands and among birds in Belgium and Germany. As of April 25, the National Influenza Center in the Netherlands had confirmed 83 cases of H7N7 influenza virus infections among poultry workers and their families since the end of February 2003; 79 had conjunctivitis, but six also reported ILI symptoms (e.g., fever, cough, and muscle aches). One person reported only ILI, and two persons reported mild illness that could not be classified as ILI or conjunctivitis. A veterinarian aged 57 years who visited one of the affected farms in early April died on April 17 of acute respiratory distress syndrome and complications related to H7N7 infection. Dutch authorities reported that transmission of H7N7 influenza from two poultry workers to three family members possibly occurred. All three family members had conjunctivitis, and one also had ILI.

Composition of the 2003–04 Influenza Vaccine

The Food and Drug Administration's Vaccines and Related Biological Products Advisory Committee (VRBPAC) recommended that the 2003–04 trivalent influenza vaccine for the United States contain A/New Caledonia/20/99-like (H1N1), A/Moscow/10/99-like (H3N2), and B/Hong Kong/330/01-like viruses. This recommendation was based on antigenic analyses of recently isolated influenza viruses, epidemiologic data, and postvaccination serologic studies in humans.

The hemagglutinin proteins of the majority of influenza A (H1N1) and A (H1N2) viruses isolated worldwide were similar to A/New Caledonia/20/99 (H1N1). Antibodies produced following vaccination with the 2002–03 vaccine containing A/New Caledonia/20/99 (H1N1) virus reacted equally well with recent influenza A (H1N1) and A (H1N2) viruses and the vaccine strain (*3*).

The majority of influenza A (H3N2) viruses isolated during the 2002–03 season were similar to A/Panama/2007/99 and A/Moscow/10/99-like (H3N2) viruses. A small number of influenza A (H3N2) viruses had reduced titers to ferret antisera produced against A/Panama/2007/99 (H3N2)-like viruses. Because the majority of viruses were similar to A/Panama/2007/99, an influenza A/Moscow/10/99-like (H3N2) virus was retained in the 2003–04 vaccine. Because of its growth properties, U.S. vaccine manufacturers will use an antigenically equivalent virus, A/Panama/2007/99, as the influenza A component (*4*).

The majority of influenza B isolates worldwide were from the B/Victoria/2/87 lineage and were similar to the 2002–03 vaccine strain, B/Hong Kong/330/01. U.S. manufacturers will use either B/Hong Kong/330/01 or the antigenically equivalent virus, B/Hong Kong/1434/02, in the 2003–04 vaccine.

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Editorial Note: Overall, the 2002–03 influenza season was mild, and the predominant virus type/subtype varied by region in the United States and in Europe. In many areas, the predominant circulating virus type changed within a region or country as the season progressed. For example, influenza B viruses predominated in the United States during October–January, but after January, influenza A viruses were identified more frequently.

Human infections with avian influenza viruses A (H5N1) and A (H7N7) were reported during 2002–03 influenza season in Hong Kong and the Netherlands, respectively. These are the first human infections with avian influenza viruses reported since 1999, when two children were infected with influenza A (H9N2) in Hong Kong (*5*), and the first human influenza A (H5N1) infections reported since 1997 (*6,7*). Since 1997, influenza A (H5N1) virus has been detected periodically in chickens and ducks, and more recently, in wild birds in Hong Kong. Human H7N7 infections were associated previously with conjunctivitis (*8,9*), but the cases in the Netherlands are the first virologically confirmed respiratory infections with this virus subtype and include the first recorded human fatality associated with this virus.

Transmission of avian influenza viruses directly from animals to humans is unusual. Humans typically have little or no antibody protection against these viruses. If an avian or other animal influenza virus infected humans and spread efficiently from person to person, an influenza pandemic could result.

As a result of the human A (H5N1) infections, in February 2003, CDC issued recommendations for enhanced influenza surveillance for state health departments (http://www.cdc.gov/ncidod/diseases/flu/hanH5N1.htm). Recommendations for enhanced influenza surveillance include 1) year-round laboratory testing for influenza and sentinel provider surveillance for ILI; 2) subtyping of all influenza A viruses identified by U.S. WHO/NREVSS collaborating laboratories; and 3) strengthening of sentinel provider surveillance in states with <75% of their sentinel provider goal (i.e., one regularly reporting site per 250,000 population, or a minimum of 10 sites in smaller, less populous states).

Considerable overlap exists between the clinical presentation and travel history of persons who might have severe acute respiratory syndrome (SARS) and those who should be evaluated for infection with influenza A (H5N1). Influenza A infection should be considered in the differential diagnosis along with SARS when evaluating patients with febrile respiratory illness. Priority should be given to subtyping influenza A viruses isolated from potential SARS patients with recent travel to Asia and the contacts of such persons. Any influenza viruses that cannot be subtyped should be reported immediately to CDC.

Influenza vaccine manufacturers project that approximately 80–85 million doses of influenza vaccine will be available for distribution during the 2003–04 season, approximately 10–15 million doses below last year's production level, but more than the estimated total number of doses sold in 2002. This projection could change as the season progresses.

Acknowledgments

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Progress Toward Poliomyelitis Eradication — Southern Africa, 2001–March 2003

Since the 1988 World Health Assembly resolution to eradicate poliomyelitis globally, substantial progress has been made in all World Health Organization (WHO) regions, and three regions (Americas, European, and Western Pacific) are classified as polio-free (*1,2*). The African Region comprises four epidemiologic blocks (Central, Eastern, Southern, and Western). The Southern African block comprises 14 countries — 10 on the mainland (Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia, and Zimbabwe) and four in the Indian Ocean (Comoros, Madagascar, Mauritius, and Seychelles) — with a combined total population in 2002 of approximately 120 million persons. This report summarizes polio eradication efforts in the Southern African block during January 2001–March 2003, which indicate the possible interruption of wild poliovirus (WPV) transmission and underscore the need to sustain polio eradication efforts.

Routine Vaccination

During 2001, coverage with 3 doses of oral poliovirus vaccine (OPV) was estimated at >90% in two countries (Mauritius and Seychelles), at 80%–89% in four countries (Botswana, Lesotho, Malawi, and South Africa), and at 70%–79% in five countries (Comoros, Mozambique, Swaziland, Zambia, and Zimbabwe). Coverage was lowest (<70%) in three countries: Namibia (64%), Madagascar (58%), and Angola (44%) (*3*).

Supplementary Immunization Activities

During 1996–2000, all countries in the Southern African block conducted supplementary immunization activities (SIAs) with OPV during ≥2 years (Table 1). SIAs consisted of two rounds of National Immunization Days (NIDs)* in the winter (May–September), targeting children aged ≤59 months. Angola, Namibia, and Zambia continued annual NIDs through 2002 because of WPV transmission in Angola and cross-border transmission in western Zambia. After having discontinued NIDs for 3 years, Madagascar resumed conducting NIDs in 2002 after a polio outbreak caused by circulating vaccine-derived poliovirus (cVDPV).

During 2001–2002, SIA quality improved substantially through more detailed microplanning (i.e., planning at the district level), house-to-house vaccination, intensified supervision of house-to-house vaccination teams, and separate tallying of children who never had received OPV. During the first round of NIDs in Madagascar in September 2002, of the approximately 3.7 million children aged <5 years who were vaccinated, approximately 492,000 (15%) never had received OPV. Analysis of the distribution of these children enabled the Ministry of Health to determine which geographic areas to focus on to improve routine vaccination. In 2002, SIAs were coordinated among countries inside and outside the Southern African block, and NIDs in Angola and Namibia were synchronized with SIAs in the Democratic Republic of Congo and selected countries of the Central African block. Angola plans to conduct additional NIDs in June and August 2003.

Incidence of Polio

Countries of the Southern African block with the most recent isolation of WPV from acute flaccid paralysis (AFP) cases include Zambia (2002, two cases imported from Angola), Angola (2001, one case), Madagascar (1997, one case), and Namibia (1995, at least eight cases) (Tables 1 and 2). In the other countries of the Southern African block, WPV was last isolated in 1993 or earlier. In Madagascar, a polio outbreak related to cVDPV during 2001–2002 was detected and controlled after NIDs were conducted during September–October 2002 (*4*).

AFP Surveillance

The goal of AFP surveillance is to detect circulating polioviruses and provide data for developing appropriate supplementary vaccination strategies. AFP surveillance quality is evaluated by two key indicators: sensitivity of reporting (target: nonpolio AFP rate of ≥1 case per 100,000 children aged <15 years) and completeness of specimen collection (target: two adequate stool specimens† from ≥80% of persons with

* Nationwide mass campaigns during a short period (days to weeks) in which 2 doses of OPV are administered to all children (usually aged <5 years), regardless of previous vaccination history, with an interval of 4–6 weeks between doses.

† Two stool specimens collected at an interval of at least 24 hours apart, within 14 days of onset of paralysis, and adequately shipped to the laboratory.

TABLE 1. Year of last identified poliovirus and years in which supplemental immunization activities (SIAs) were conducted, by country — 11 countries, Southern Africa, 1996–2002

Country	Last identified poliovirus	SIAs conducted 1996	1997	1998	1999	2000	2001	2002
Angola	2001	x	x	x	x	x	x	x
Botswana	1989	x	x	x		x		
Lesotho	1987	x	x	x				
Madagascar	2002*		x	x	x			x
Malawi	1991	x	x		x	x		x
Mozambique	1993	x	x	x	x			
Namibia	1995	x	x	x	x	x	x	x
South Africa	1989	x	x	x		x		
Swaziland	1989	x		x				
Zambia	2002†	x	x	x	x	x	x	x
Zimbabwe	1991	x	x					

* Circulating vaccine-derived poliovirus (last identified indigenous wild poliovirus in 1997).
† Importation from Angola (last identified indigenous wild poliovirus in 1995).

AFP). All countries of the Southern African block except Madagascar and Mozambique have achieved a level of AFP surveillance that allows use of virologic case classification criteria (i.e., annual adequate specimens collected from ≥60% of persons with AFP) (*5*). Madagascar, Mozambique, Namibia, and South Africa have not yet achieved certification-quality AFP surveillance (adequate specimens from ≥80% of persons with AFP) in any year (Table 2). Analysis of AFP performance indicators at the subnational level indicates considerable surveillance deficiencies at the provincial and district level. During January–March 2003, surveillance performance in Southern African block countries continued to improve, especially in Botswana, Mozambique, South Africa, and Swaziland. Performance decreased substantially in Angola (Table 2).

Regional Laboratory Network

The polio laboratory network in the Southern African block consists of four laboratories: one each in Madagascar, Zambia (which also serves Tanzania), Zimbabwe (which also serves Malawi), and South Africa (a regional reference laboratory that serves the remaining countries in the block and countries in other blocks). During 2002, network laboratories processed 2,114 samples from 1,088 persons with AFP with paralysis onset (South Africa, 571 cases; Zambia, 277 cases [including 144 samples from Tanzania]; Zimbabwe, 182 cases; and Madagascar, 58 cases). The nonpolio enterovirus (NPEV) isolation rate (target: ≥10% of stool specimens with NPEV isolation) serves as a combined indicator of specimen quality (i.e., quality of the reverse cold chain for specimen transport) and laboratory sensitivity. For the eight countries that reported an NPEV isolation rate, the rate ranged from 0 to 44%. Angola, Botswana, Mozambique, Namibia, and South Africa all reported NPEV isolation rates of >10%.

Certification and Laboratory Containment of Poliovirus

All countries in the Southern African block except Namibia have established National Polio Expert Committees (NPECs) comprising experts who make the final classification of AFP cases as confirmed polio, polio-compatible, or nonpolio AFP. All countries have National Committees for the Certification of Polio Eradication (NCCs) comprising independent experts who work closely with the African Regional Certification Commission (ARCC) to achieve the eventual polio-free certification of the region. Although NPECs exist in the majority of countries of the Southern African block, delays in AFP case classification have occurred, with large numbers of AFP cases pending final classification for approximately 6 months; as of December 2002, a total of 283 persons with AFP with paralysis onset during 2002 had not been classified. In 2002, a total of 13 AFP cases were classified as polio-compatible (nine from Angola and four from South Africa). No clusters of polio-compatible cases were found.

TABLE 2. Number of confirmed wild poliovirus (WPV) cases and key surveillance indicators, by country — 11 countries, Southern Africa, January 2001–March 2003*

	2001			2002			January–March 2003		
Country	No. confirmed WPV cases	Nonpolio AFP† rate§	% Persons with AFP with adequate specimens¶	No. confirmed WPV cases	Nonpolio AFP rate	% Persons with AFP with adequate specimens	No. confirmed WPV cases	Nonpolio AFP rate	% Persons with AFP with adequate specimens
Angola	1	2.4	66	0	3.0	85	0	0.8	77
Botswana	0	1.1	75	0	1.3	78	0	4.0	86
Lesotho	0	1.0	91	0	1.4	87	0	0.7	100
Madagascar	0**	0.4	69	0††	0.8	25	0	0.9	53
Malawi	0	1.4	90	0	1.4	84	0	1.0	85
Mozambique	0	0.6	48	0	1.2	41	0	1.0	75
Namibia	0	3.6	48	0	2.3	67	0	0.5	0
South Africa	0	1.0	61	0	1.2	75	0	1.4	87
Swaziland	0	2.0	80	0	1.4	71	0	5.6	100
Zambia	3	3.4	78	2	2.5	69	0	2.3	94
Zimbabwe	0	1.4	72	0	1.6	83	0	1.3	76
Total	**4**	**1.5**	**87**	**2**	**1.6**	**71**	**0**	**1.4**	**67**

* Data as of April 28, 2003.
† Acute flaccid paralysis.
§ Per 100,000 children aged <15 years.
¶ Two stool specimens collected at an interval of at least 24 hours apart, within 14 days of onset of paralysis, and adequately shipped to the laboratory.
** One AFP case with circulating vaccine-derived poliovirus (cVDPV) was detected.
†† Four AFP cases with cVDPV were detected.

NCCs in all Southern African block countries have begun to submit annual country progress reports on polio eradication to the ARCC. After >3 years of certification-quality AFP surveillance without detecting WPV, Malawi is one of the first eight countries in the African Region selected by ARCC to begin submitting final national documentation toward eventual certification in 2003. Efforts toward the eventual laboratory containment of WPVs also have begun, with the designation of national task forces (NTFs) for laboratory containment in Angola, Botswana, Madagascar, Malawi, Namibia, South Africa, Swaziland, and Zimbabwe. Lesotho and Zambia are in the process of establishing NTFs.

Reported by: *Inter-Country Program Office, World Health Organization; Regional Office for Africa, World Health Organization, Harare, Zimbabwe. Vaccines and Biologicals Dept, World Health Organization, Geneva, Switzerland. Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Global Immunization Div, National Immunization Program, CDC.*

Editorial Note. The last reported cases of polio confirmed with isolation of WPV in the Southern African block were observed in Zambia in February 2002. During January 2001–March 2003, WPV was isolated only in Angola and Zambia, and AFP surveillance quality improved in several countries, most notably in Angola, which had faced enormous challenges because of war (*6*). However, the decline in surveillance performance in Angola during January–March 2003 demonstrates the fragile nature of surveillance in this country, and steps have been taken to ensure that surveillance quality will rebound rapidly.

Although transmission of indigenous WPV in the Southern African block might have been interrupted, the possibility of ongoing transmission of WPV in the Southern African block cannot be excluded despite improved AFP surveillance in several countries (particularly Madagascar, Mozambique, and South Africa) and the absence of reports of AFP cases in many areas (particularly in eastern Angola).

AFP surveillance quality in all countries of the Southern African block should be improved to ensure that inadequate AFP surveillance does not delay eradication and the eventual polio-free certification of the African Region. During 2002, an external surveillance review, an important tool to assess both the organization and performance of surveillance, was conducted in Angola, and reviews are planned in 2003 for Madagascar, Mozambique, and South Africa. In addition, the country technical advisory group for Angola will convene in June to review the polio eradication initiative in this country, monitor the implementation of the recommendations resulting from the 2002 surveillance review, and offer advice on further strengthening of surveillance and the need for SIAs (*7*).

The formation of functional NPECs and NCCs in the majority of countries indicates that progress is being made toward achieving certification. However, further political commitment to accelerate the implementation of key polio-eradication strategies, including all aspects of AFP surveillance, is needed in all countries in the Southern African block, particularly those that have not yet achieved certification-quality surveillance.

Support for the polio eradication initiative in Southern Africa has been provided primarily by WHO member states, the Netherlands, the United States, the United Kingdom, Rotary International, and CDC. For polio eradication activities in these countries to be sustained until global certification is achieved, additional funding will be required. Through national Expanded Program on Immunization Interagency Coordination Committees, polio eradication partners should explore opportunities to raise funds from government and local partner agencies to support some activities. Strengthening polio eradication strategies in Southern Africa will prevent importation and circulation of polioviruses until global polio eradication is certified.

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Update: Severe Acute Respiratory Syndrome — United States, June 4, 2003

CDC continues to work with state and local health departments, the World Health Organization (WHO), and other partners to investigate cases of severe acute respiratory syndrome (SARS). This report updates SARS cases reported worldwide and in the United States and summarizes changes in CDC's recommendations for travel to Singapore and Hong Kong and the resulting modification to the interim U.S. case definition for SARS.

During November 1, 2002–June 4, 2003, a total of 8,402 SARS cases were reported to WHO from 29 countries, including the United States; 772 deaths (case-fatality proportion: 9.2%) have been reported (*1*). A total of 373 SARS cases identified in the United States have been reported from 41 states and Puerto Rico, with 306 (82%) cases classified as suspect SARS and 67 (18%) classified as probable SARS (i.e., more severe illnesses characterized by the presence of pneumonia or acute respiratory distress syndrome) (*2*). One probable and nine suspect cases have been identified since the previous update (*3*). No SARS-related deaths have been reported in the United States. Of the 67 probable cases, 65 (97%) were attributed to international travel to areas with documented or suspected community transmission of SARS within the 10 days before illness onset; the remaining two (3%) probable cases occurred in a health-care worker who provided care to a SARS patient and a household contact of a SARS patient. Since the previous update (*3*), the number of cases with laboratory-confirmed infection with SARS-associated coronavirus (SARS-CoV) remains at seven; all are probable SARS cases, with no suspect SARS cases having laboratory evidence of infection with SARS-CoV.

CDC has downgraded the traveler notification for Hong Kong from a travel advisory to a travel alert (*4,5*). This change is based on surveillance data from Hong Kong indicating that the symptoms onset date of the last reported patient without a known source of exposure occurred on April 30, 2003, and that more than 20 days, or two SARS incubation periods, have elapsed since that date. Persons who report travel to Hong Kong will continue to meet the surveillance case definition if illness onset occurs within 10 days of travel.

The travel alert for Singapore was removed on June 4 because 30 days (three maximum incubation periods) had

elapsed after the date of onset of symptoms for the last case (*6*). As a result, the epidemiologic criteria for travel exposure in the interim U.S. case definition have been revised. Illness in persons reporting travel to Singapore will be consistent with the surveillance case definition if onset occurred within 10 days (one maximum incubation period) after removal of the travel alert. This revision to the case definition is for surveillance purposes only. Clinical judgment, rather than surveillance criteria, should continue to guide the management of patients and implementation of public health response measures when persons with an unknown respiratory illness are identified.

Reported by: *State and local health departments. SARS Investigative Team, CDC.*

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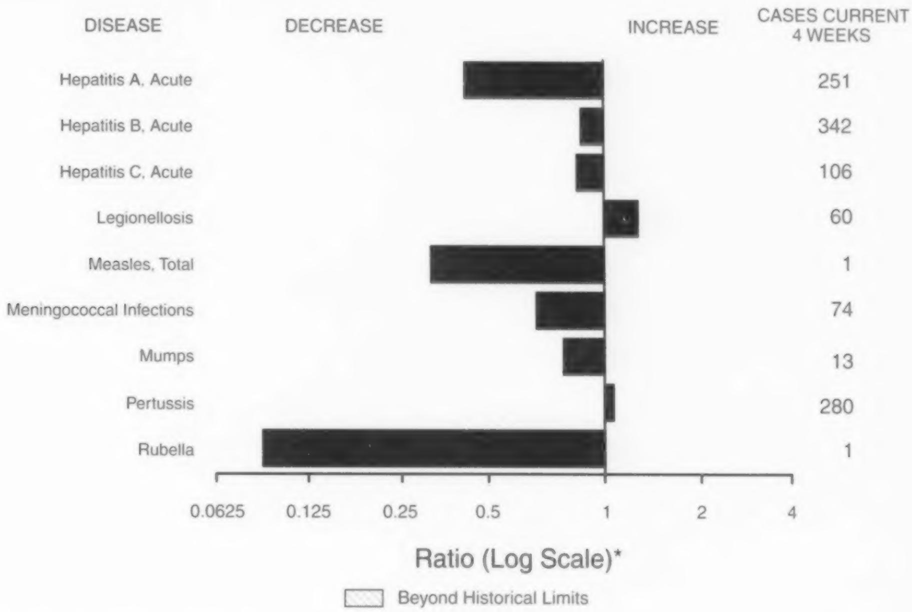
Erratum: Vol. 52, No. RR-8

In the *MMWR Recommendations and Reports*, "Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP)," published April 25, 2003, on page 12, an error occurred in the title for Table 3. The title should read, "Influenza vaccine* dosage by age group — United States, 2003–04 season."

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals May 31, 2003, with historical data



* Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending May 31, 2003 (22nd Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	1	Hansen disease (leprosy)†	20	36
Botulism:	-	-	Hantavirus pulmonary syndrome†	8	6
foodborne	5	6	Hemolytic uremic syndrome, postdiarrheal†	46	46
infant	24	29	HIV infection, pediatric†§	108	64
other (wound & unspecified)	9	6	Measles, total	17¶	7**
Brucellosis†	26	48	Mumps	88	135
Chancroid	14	36	Plague	-	1
Cholera	-	-	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	14	62	Psittacosis†	6	11
Diphtheria	-	-	Q fever†	34	21
Ehrlichiosis:	-	-	Rabies, human	-	1
human granulocytic (HGE)†	25	40	Rubella	4	4
human monocytic (HME)†	28	16	Rubella, congenital	-	2
other and unspecified	1	2	Streptococcal toxic-shock syndrome†	80	66
Encephalitis/Meningitis:	-	-	Tetanus	3	8
California serogroup viral†	-	-	Toxic-shock syndrome	53	46
eastern equine†	-	-	Trichinosis	2	10
Powassan†	-	-	Tularemia†	9	13
St. Louis†	-	-	Yellow fever	-	-
western equine†	-	-			

-: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update May 25, 2003.
¶ Of 17 cases reported, 16 were indigenous and one was imported from another country.
** Of seven cases reported, four were indigenous and three were imported from another country.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending May 31, 2003, and June 1, 2002 (22nd Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	19,482	16,491	331,936	340,708	1,308	1,809	729	871	-	-
NEW ENGLAND	654	627	10,956	11,072	-	-	44	40	-	-
Maine	27	19	771	603	N	N	5	2	-	-
N.H.	15	15	613	670	-	-	3	9	-	-
Vt.	6	6	431	305	-	-	9	8	-	-
Mass.	277	313	4,307	4,439	-	-	18	12	-	-
R.I.	51	49	1,346	1,067	-	-	7	5	-	-
Conn.	278	225	3,488	3,988	N	N	2	4	-	-
MID. ATLANTIC	4,098	3,436	35,312	37,206	-	-	88	129	-	-
Upstate N.Y.	274	239	7,850	6,567	N	N	30	25	-	-
N.Y. City	1,976	1,812	12,250	12,836	-	-	27	51	-	-
N.J.	787	665	5,530	5,297	-	-	3	11	-	-
Pa.	1,061	720	9,682	12,506	N	N	28	42	-	-
E.N. CENTRAL	1,982	1,773	59,195	63,251	3	10	155	246	-	-
Ohio	303	311	15,933	16,567	-	-	24	56	-	-
Ind.	259	206	6,907	6,962	N	N	18	19	-	-
Ill.	959	814	16,450	19,889	-	2	16	50	-	-
Mich.	359	360	13,549	12,783	3	8	35	46	-	-
Wis.	102	82	6,356	7,050	-	-	62	75	-	-
W.N. CENTRAL	358	269	19,369	19,003	1	-	75	83	-	-
Minn.	74	55	3,971	4,449	N	N	37	30	-	-
Iowa	41	41	1,718	2,210	N	N	10	8	-	-
Mo.	177	116	7,222	5,941	-	-	6	12	-	-
N. Dak.	-	-	513	535	N	N	4	5	-	-
S. Dak.	7	2	1,042	926	-	-	15	5	-	-
Nebr.	25	23	1,905	1,901	1	-	3	17	-	-
Kans.	34	32	2,998	3,041	N	N	-	6	-	-
S. ATLANTIC	5,488	5,341	64,421	63,664	1	1	114	123	-	-
Del.	106	95	1,305	1,151	N	N	1	1	-	-
Md.	558	815	6,910	6,442	1	1	9	5	-	-
D.C.	595	264	1,106	1,382	-	-	-	3	-	-
Va.	481	344	7,579	6,855	-	-	12	1	-	-
W. Va.	42	39	1,048	1,026	N	N	1	1	-	-
N.C.	581	399	10,816	10,150	N	N	15	18	-	-
S.C.	330	420	6,084	6,114	-	-	2	2	-	-
Ga.	736	920	13,033	13,058	-	-	47	45	-	-
Fla.	2,059	2,045	16,540	17,486	N	N	27	47	-	-
E.S. CENTRAL	841	749	22,445	22,465	N	N	45	52	-	-
Ky.	79	122	3,440	3,695	N	N	9	1	-	-
Tenn.	374	324	7,857	7,038	N	N	12	27	-	-
Ala.	185	143	5,853	7,019	-	-	21	20	-	-
Miss.	203	160	5,295	4,713	N	N	3	4	-	-
W.S. CENTRAL	2,125	1,801	42,461	45,838	-	-	32	29	-	-
Ark.	65	123	3,029	3,008	-	-	1	4	-	-
La.	368	431	6,416	7,988	N	N	1	8	-	-
Okla.	92	94	3,976	4,387	N	N	4	3	-	-
Tex.	1,600	1,153	29,040	30,455	-	-	26	14	-	-
MOUNTAIN	722	553	19,520	20,932	928	1,257	36	51	-	-
Mont.	10	6	935	696	N	N	7	4	-	-
Idaho	13	10	1,078	979	N	N	6	16	-	-
Wyo.	4	3	409	376	-	-	1	5	-	-
Colo.	159	107	4,423	5,939	N	N	7	10	-	-
N. Mex.	52	34	2,497	3,206	1	4	1	6	-	-
Ariz.	341	235	6,149	6,100	907	1,232	2	6	-	-
Utah	31	30	1,873	1,004	5	5	9	1	-	-
Nev.	112	128	2,156	2,632	15	16	3	3	-	-
PACIFIC	3,214	1,942	58,257	57,277	374	541	140	118	-	-
Wash.	214	228	6,554	6,063	N	N	12	9	-	-
Oreg.	126	178	3,213	2,782	-	-	17	15	-	-
Calif.	2,815	1,496	46,356	45,114	374	541	111	93	-	-
Alaska	12	9	1,549	1,527	-	-	-	-	-	-
Hawaii	47	31	585	1,791	-	-	-	1	-	-
Guam	2	1	-	-	-	-	-	-	-	-
P.R.	514	502	483	1,254	N	N	N	N	-	-
V.I.	15	53	-	81	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update May 25, 2003.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 31, 2003, and June 1, 2002 (22nd Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC) O157:H7 Cum. 2003	O157:H7 Cum. 2002	Shiga toxin positive, serogroup non-O157 Cum. 2003	Shiga toxin positive, serogroup non-O157 Cum. 2002	Shiga toxin positive, not serogrouped Cum. 2003	Shiga toxin positive, not serogrouped Cum. 2002	Giardiasis Cum. 2003	Giardiasis Cum. 2002	Gonorrhea Cum. 2003	Gonorrhea Cum. 2002
UNITED STATES	439	615	70	29	52	5	5,740	7,263	124,637	144,701
NEW ENGLAND	26	49	10	4	6	1	411	659	2,712	3,285
Maine	3	2	1	-	-	-	51	66	87	34
N.H.	6	5	-	-	-	-	15	20	43	55
Vt.	-	2	-	-	-	-	35	47	33	42
Mass.	7	28	2	2	6	1	188	343	1,070	1,416
R.I.	1	4	-	-	-	-	44	44	403	399
Conn.	9	8	7	2	-	-	78	139	1,076	1,339
MID. ATLANTIC	26	50	3	-	14	2	1,083	1,583	14,169	17,222
Upstate N.Y.	18	30	1	-	9	-	334	430	2,986	3,428
N.Y. City	3	4	-	-	-	-	432	609	4,565	5,219
N.J.	5	16	-	-	-	-	98	184	3,260	3,249
Pa.	N	N	2	-	5	2	219	360	3,358	5,326
E.N. CENTRAL	99	171	8	6	7	-	963	1,226	26,501	30,349
Ohio	25	26	8	2	7	-	340	325	8,938	9,074
Ind.	16	15	-	-	-	-	-	-	2,656	2,994
Ill.	17	58	-	2	-	-	220	375	7,239	9,967
Mich.	21	28	-	2	-	-	261	330	5,500	5,896
Wis.	20	44	-	-	-	-	142	196	2,168	2,418
W.N. CENTRAL	61	79	5	5	9	-	576	679	6,553	7,316
Minn.	21	25	4	4	-	-	216	234	982	1,266
Iowa	9	18	-	-	-	-	83	96	411	496
Mo.	18	16	N	N	N	N	147	187	3,353	3,517
N. Dak.	1	-	-	-	2	-	12	6	23	31
S. Dak.	2	3	-	-	-	-	20	25	75	99
Nebr.	6	10	1	1	-	-	51	60	631	674
Kans.	4	7	-	-	6	-	47	71	1,078	1,233
S. ATLANTIC	49	55	24	10	-	-	968	1,069	31,473	37,023
Del.	-	2	N	N	N	N	14	21	501	691
Md.	-	4	-	-	-	-	46	42	3,225	3,632
D.C.	1	-	-	-	-	-	14	18	839	1,141
Va.	18	12	2	-	-	-	114	81	3,525	4,289
W. Va.	1	1	-	-	-	-	10	12	343	405
N.C.	5	9	6	-	-	-	N	N	6,103	7,036
S.C.	-	-	-	-	-	-	45	25	3,234	3,686
Ga.	10	17	2	5	-	-	368	330	6,377	6,943
Fla.	14	10	14	5	-	-	357	540	7,326	9,200
E.S. CENTRAL	22	26	-	-	4	-	129	128	10,756	12,602
Ky.	8	6	-	-	4	-	N	N	1,460	1,455
Tenn.	9	15	-	-	-	-	51	59	3,166	3,873
Ala.	4	1	-	-	-	-	78	69	3,429	4,416
Miss.	1	4	-	-	-	-	-	-	2,701	2,858
W.S. CENTRAL	38	25	11	-	8	1	96	55	17,049	20,202
Ark.	2	1	-	-	-	-	52	54	1,593	1,791
La.	-	1	-	-	-	-	3	-	4,024	4,903
Okla.	3	3	-	-	-	-	41	-	1,525	1,898
Tex.	33	20	11	-	8	1	-	1	9,907	11,610
MOUNTAIN	51	49	7	2	4	1	493	517	4,005	4,518
Mont.	1	8	-	-	-	-	25	31	55	39
Idaho	13	5	4	-	-	-	59	27	36	36
Wyo.	1	2	-	1	-	-	7	8	19	26
Colo.	16	13	1	-	4	1	147	179	1,024	1,472
N. Mex.	1	4	2	1	-	-	17	65	411	616
Ariz.	9	5	N	N	N	N	83	69	1,613	1,445
Utah	9	6	-	-	-	-	110	84	176	89
Nev.	1	6	-	-	-	-	45	54	671	795
PACIFIC	67	111	2	2	-	-	1,021	1,347	11,419	12,184
Wash.	18	11	1	-	-	-	83	166	1,210	1,229
Oreg.	10	29	1	2	-	-	130	153	405	341
Calif.	38	49	-	-	-	-	756	951	9,447	10,121
Alaska	1	4	-	-	-	-	35	34	221	256
Hawaii	-	18	-	-	-	-	17	43	136	237
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	1	-	-	-	-	10	7	44	200
V.I.	-	-	-	-	-	-	-	-	-	19
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 31, 2003, and June 1, 2002 (22nd Week)*

	Haemophilus influenzae, invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years						A	
	All serotypes		Serotype B		Non-serotype B		Unknown serotype			
Reporting area	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	666	827	5	14	101	144	15	9	2,322	4,175
NEW ENGLAND	53	58	-	-	6	7	3	1	92	159
Maine	2	1	-	-	-	-	1	-	4	6
N.H.	7	4	-	-	-	-	-	-	6	9
Vt.	6	3	-	-	-	-	-	-	4	-
Mass.	24	26	-	-	6	3	1	1	50	74
R.I.	3	9	-	-	-	-	1	-	10	20
Conn.	11	15	-	-	-	4	-	-	18	50
MID. ATLANTIC	115	155	-	1	14	25	4	-	404	530
Upstate N.Y.	45	58	-	1	7	8	-	-	44	82
N.Y. City	19	34	-	-	5	7	-	-	134	187
N.J.	25	37	-	-	2	5	-	-	64	83
Pa.	26	26	-	-	-	5	4	-	162	178
E.N. CENTRAL	88	171	1	2	15	29	-	-	234	482
Ohio	36	45	-	-	7	5	-	-	42	129
Ind.	21	23	-	1	2	5	-	-	19	24
Ill.	20	66	-	-	5	12	-	-	72	145
Mich.	9	7	1	1	1	-	-	-	80	105
Wis.	2	30	-	-	-	7	-	-	21	79
W.N. CENTRAL	48	23	-	-	6	2	5	3	71	152
Minn.	22	15	-	-	6	2	1	1	20	23
Iowa	-	1	-	-	-	-	-	-	15	34
Mo.	16	5	-	-	-	-	4	2	18	37
N. Dak.	-	-	-	-	-	-	-	-	-	1
S. Dak.	1	1	-	-	-	-	-	-	-	3
Nebr.	-	-	-	-	-	-	-	-	5	6
Kans.	9	1	-	-	-	-	-	-	13	48
S. ATLANTIC	158	184	-	3	17	24	-	1	575	1,184
Del.	-	-	-	-	-	-	-	-	4	7
Md.	34	46	-	1	4	1	-	-	64	133
D.C.	-	-	-	-	-	-	-	-	17	40
Va.	16	14	-	-	4	2	-	-	35	38
W. Va.	7	2	-	-	-	-	-	-	9	10
N.C.	10	20	-	-	-	3	-	-	26	118
S.C.	3	5	-	-	-	2	-	-	19	33
Ga.	38	43	-	-	5	8	-	-	219	245
Fla.	50	54	-	2	4	8	-	1	182	560
E.S. CENTRAL	45	29	1	1	6	8	-	-	65	129
Ky.	2	3	-	-	-	-	-	-	12	26
Tenn.	25	14	-	-	4	5	-	-	34	51
Ala.	16	6	1	1	1	2	-	-	11	22
Miss.	2	6	-	-	1	1	-	-	8	30
W.S. CENTRAL	32	29	-	2	5	6	-	-	216	391
Ark.	5	1	-	-	1	-	-	-	2	21
La.	6	3	-	-	1	1	-	-	20	35
Okla.	21	23	-	-	3	5	-	-	7	15
Tex.	-	2	-	2	-	-	-	-	187	320
MOUNTAIN	92	99	3	3	25	22	2	2	157	269
Mont.	-	-	-	-	-	-	-	-	2	7
Idaho	2	1	-	-	1	-	-	-	-	19
Wyo.	-	1	-	-	-	-	-	-	1	2
Colo.	16	18	-	-	4	2	-	-	24	40
N. Mex.	13	16	-	-	4	4	1	-	8	7
Ariz.	50	45	3	1	11	12	-	1	90	150
Utah	7	12	-	1	4	3	-	-	15	17
Nev.	4	6	-	1	1	1	1	1	17	27
PACIFIC	35	79	-	2	7	21	1	2	508	879
Wash.	3	2	-	1	2	1	1	-	26	68
Oreg.	25	30	-	-	3	3	-	-	30	37
Calif.	2	28	-	1	2	14	-	2	446	753
Alaska	-	1	-	-	-	1	-	-	5	7
Hawaii	5	18	-	-	-	2	-	-	1	14
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	9	92
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 31, 2003, and June 1, 2002 (22nd Week)*

	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
Reporting area	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	2,569	2,985	1,184	805	383	318	177	184	2,236	3,035
NEW ENGLAND	103	113	-	13	14	13	7	18	197	293
Maine	-	3	-	-	-	2	-	2	-	-
N.H.	10	7	-	-	1	1	2	2	6	20
Vt.	1	2	-	8	1	-	-	-	4	4
Mass.	81	70	-	5	5	6	3	11	14	246
R.I.	3	14	-	-	1	-	-	1	94	16
Conn.	8	17	-	-	6	4	2	2	79	7
MID. ATLANTIC	485	677	54	48	64	79	29	36	1,634	2,213
Upstate N.Y.	44	51	23	24	27	17	9	10	863	979
N.Y. City	170	365	-	-	8	16	7	10	1	30
N.J.	204	112	-	4	2	15	4	5	264	504
Pa.	67	149	31	20	27	31	9	11	506	700
E.N. CENTRAL	186	234	103	48	78	83	15	28	52	124
Ohio	65	38	5	-	41	32	3	9	14	16
Ind.	10	9	-	-	5	4	1	2	4	2
Ill.	1	40	6	11	3	11	3	6	-	11
Mich.	88	127	92	37	29	25	8	7	-	-
Wis.	22	20	-	-	-	11	-	4	34	95
W.N. CENTRAL	118	94	104	394	15	20	5	6	37	39
Minn.	14	5	3	-	2	2	2	-	21	21
Iowa	4	11	-	1	4	5	-	1	4	5
Mo.	73	52	101	389	5	6	1	3	8	10
N. Dak.	-	1	-	-	1	-	-	1	-	-
S. Dak.	1	-	-	-	-	1	-	-	-	-
Nebr.	14	15	-	4	2	6	2	-	1	1
Kans.	12	10	-	-	1	-	-	1	3	2
S. ATLANTIC	761	701	77	83	110	67	45	24	210	262
Del.	2	7	-	-	-	5	N	N	30	39
Md.	44	67	8	6	19	8	5	4	130	152
D.C.	1	7	-	-	1	2	-	-	3	7
Va.	59	91	1	-	9	5	6	1	14	11
W. Va.	7	13	1	1	N	N	2	-	1	2
N.C.	77	97	3	12	9	5	9	2	17	27
S.C.	67	40	19	4	3	5	1	3	1	2
Ga.	251	170	3	35	11	6	12	5	4	1
Fla.	253	209	42	25	58	31	10	9	10	21
E.S. CENTRAL	156	145	44	55	13	9	6	8	13	17
Ky.	34	20	7	2	2	5	-	2	3	6
Tenn.	59	60	8	13	9	-	1	3	6	2
Ala.	29	33	5	2	1	4	3	3	1	5
Miss.	34	32	24	38	1	-	2	-	3	4
W.S. CENTRAL	123	460	739	91	37	10	26	12	43	49
Ark.	2	55	-	8	-	-	-	-	-	-
La.	26	50	18	38	-	4	-	-	3	1
Okla.	21	8	-	-	2	2	1	3	-	-
Tex.	74	347	721	45	35	4	25	9	40	48
MOUNTAIN	258	204	28	22	25	12	13	14	5	5
Mont.	8	3	1	-	1	1	1	-	-	-
Idaho	-	3	-	-	2	-	-	-	1	1
Wyo.	14	11	-	4	1	-	-	-	-	-
Colo.	40	33	21	2	6	3	6	2	1	-
N. Mex.	13	48	-	1	2	1	2	2	-	1
Ariz.	137	67	3	3	6	3	4	8	-	1
Utah	20	13	-	1	5	4	-	2	2	1
Nev.	26	26	3	11	2	-	-	-	1	1
PACIFIC	379	357	35	51	27	25	31	38	45	33
Wash.	25	27	7	10	2	1	1	3	-	-
Oreg.	54	67	6	6	N	N	1	2	12	3
Calif.	291	255	22	35	25	24	29	29	32	29
Alaska	7	5	-	-	-	-	-	-	1	1
Hawaii	2	3	-	-	-	-	-	4	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	13	68	-	-	-	-	-	2	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 31, 2003, and June 1, 2002 (22nd Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	327	459	872	941	2,026	2,736	1,735	2,383	119	215
NEW ENGLAND	7	27	38	53	206	273	181	325	-	1
Maine	1	1	5	2	2	3	19	19	-	-
N.H.	1	5	3	5	13	4	4	10	-	-
Vt.	-	1	-	4	29	46	11	53	-	-
Mass.	5	13	23	30	156	210	71	107	-	1
R.I.	-	1	2	4	5	1	23	22	-	-
Conn.	-	6	5	8	1	9	53	114	-	-
MID. ATLANTIC	68	114	72	122	193	118	179	417	11	20
Upstate N.Y.	18	16	17	27	94	81	116	229	1	-
N.Y. City	35	68	16	20	-	-	1	10	4	4
N.J.	4	17	11	19	13	-	62	59	5	6
Pa.	11	13	28	56	86	37	-	119	1	10
E.N. CENTRAL	30	67	111	144	156	324	20	27	3	5
Ohio	6	10	34	46	90	169	7	4	2	2
Ind.	-	2	20	20	25	18	2	5	-	-
Ill.	11	29	24	33	-	48	2	6	-	3
Mich.	12	19	23	21	17	32	9	8	1	-
Wis.	1	7	10	24	24	57	-	4	-	-
W.N. CENTRAL	14	33	69	79	110	237	238	195	4	27
Minn.	9	12	16	19	33	70	12	9	-	-
Iowa	2	2	10	11	23	84	28	21	1	-
Mo.	1	8	31	30	26	49	4	15	3	27
N. Dak.	-	1	-	-	1	5	24	14	-	-
S. Dak.	-	-	1	2	2	5	20	43	-	-
Nebr.	-	5	5	12	2	3	58	-	-	-
Kans.	2	5	6	5	23	21	92	93	-	-
S. ATLANTIC	90	103	144	139	178	182	859	1,044	82	114
Del.	-	1	7	5	1	2	19	9	-	-
Md.	25	32	12	4	25	22	2	176	21	15
D.C.	5	6	-	-	-	1	-	-	-	-
Va.	7	10	11	18	33	83	224	246	1	3
W. Va.	3	1	1	-	4	4	28	74	-	-
N.C.	6	8	16	15	62	18	302	272	47	58
S.C.	1	4	8	14	7	25	73	31	9	26
Ga.	15	13	17	16	21	12	167	166	-	10
Fla.	28	28	72	67	25	15	44	70	4	2
E.S. CENTRAL	7	7	32	42	47	77	24	132	16	31
Ky.	1	2	-	6	15	23	14	9	-	-
Tenn.	4	2	8	16	18	34	-	108	12	12
Ala.	2	1	12	10	11	13	10	15	2	4
Miss.	-	2	12	10	3	7	-	-	2	15
W.S. CENTRAL	34	15	206	113	136	665	128	42	1	15
Ark.	3	1	9	19	-	370	25	-	-	-
La.	1	2	22	22	4	5	-	-	-	-
Okla.	2	-	8	10	12	27	103	40	-	3
Tex.	28	12	167	62	120	263	-	2	1	12
MOUNTAIN	11	16	35	55	402	336	34	90	2	2
Mont.	-	-	2	2	-	2	7	4	-	-
Idaho	1	-	3	3	9	35	1	-	-	-
Wyo.	-	-	1	-	71	5	-	9	1	1
Colo.	8	8	12	17	166	153	2	-	-	-
N. Mex.	-	1	3	1	22	33	2	4	-	-
Ariz.	1	2	10	17	82	82	21	72	1	-
Utah	1	2	-	1	44	17	1	-	-	-
Nev.	-	3	4	14	8	9	-	1	-	1
PACIFIC	66	77	165	194	598	524	72	111	-	-
Wash.	10	8	14	34	144	135	-	-	-	-
Oreg.	5	3	31	28	152	57	1	-	-	-
Calif.	49	60	117	126	298	321	68	85	-	-
Alaska	-	1	1	1	-	2	3	26	-	-
Hawaii	2	5	2	5	4	9	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	1	2	2	-	2	20	33	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 31 , 2003, and June 1, 2002 (22nd Week)*

	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		Age <5 years	
Reporting area	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	10,615	12,506	8,501	6,026	2,725	2,388	1,103	1,406	177	143
NEW ENGLAND	549	673	107	104	158	126	12	5	1	1
Maine	37	58	4	3	16	16	-	-	-	-
N.H.	33	38	4	4	14	22	-	-	N	N
Vt.	17	26	4	-	13	7	5	3	1	1
Mass.	310	388	67	75	110	73	N	N	N	N
R.I.	33	28	3	4	5	8	7	2	-	-
Conn.	119	135	25	18	-	-	-	-	-	-
MID. ATLANTIC	1,093	1,782	522	453	375	421	58	64	49	42
Upstate N.Y.	296	420	128	62	203	171	31	60	39	36
N.Y. City	350	475	147	182	56	99	U	U	U	U
N.J.	102	411	115	118	25	89	N	N	N	N
Pa.	345	476	132	91	91	62	27	4	10	6
E.N. CENTRAL	1,490	2,055	627	660	624	541	247	102	76	58
Ohio	463	505	115	300	173	116	164	-	54	-
Ind.	189	149	51	31	53	24	83	100	17	23
Ill.	421	736	314	214	156	174	-	2	-	-
Mich.	240	336	105	60	225	160	N	N	N	N
Wis.	177	329	42	55	17	67	N	N	5	35
W.N. CENTRAL	666	825	301	490	190	142	106	302	23	24
Minn.	189	189	38	90	94	69	-	207	22	22
Iowa	123	123	22	41	N	N	N	N	N	N
Mo.	169	305	118	55	39	31	7	4	1	1
N. Dak.	15	9	-	7	6	-	3	1	-	1
S. Dak.	29	30	8	132	14	9	-	1	-	-
Nebr.	63	54	84	113	19	13	-	25	N	N
Kans.	78	115	31	52	18	20	96	64	N	N
S. ATLANTIC	2,747	2,790	2,908	1,972	474	383	563	697	4	3
Del.	22	18	118	6	5	1	1	3	N	N
Md.	286	257	225	319	160	52	-	-	-	-
D.C.	13	27	23	24	9	5	2	33	-	1
Va.	281	289	132	374	62	42	N	N	N	N
W. Va.	25	38	-	2	23	7	36	32	4	2
N.C.	400	388	274	119	36	73	N	N	U	U
S.C.	133	161	168	26	19	27	59	112	N	N
Ga.	556	458	916	491	58	86	162	176	N	N
Fla.	1,031	1,154	1,052	611	102	90	303	341	N	N
E.S. CENTRAL	645	676	396	477	97	58	71	77	-	-
Ky.	121	105	50	58	21	8	6	8	N	N
Tenn.	210	184	123	24	76	50	65	69	N	N
Ala.	192	188	146	194	-	-	-	-	N	N
Miss.	122	199	77	201	-	-	-	-	-	-
W.S. CENTRAL	941	1,174	2,424	886	242	148	29	131	23	13
Ark.	130	168	26	82	2	4	7	5	-	-
La.	69	251	77	178	1	1	22	126	9	4
Okla.	102	101	325	124	48	19	N	N	14	-
Tex.	640	654	1,996	502	191	124	N	N	-	9
MOUNTAIN	736	764	351	221	289	308	16	28	1	2
Mont.	42	33	2	1	1	-	-	-	-	-
Idaho	77	51	9	2	11	5	N	N	N	N
Wyo.	45	24	1	3	1	6	3	10	-	-
Colo.	203	200	55	45	102	65	-	-	-	-
N. Mex.	61	106	72	48	66	59	13	18	-	-
Ariz.	186	214	173	95	99	158	-	-	N	N
Utah	72	52	23	13	8	15	-	-	1	2
Nev.	50	84	16	14	1	-	-	-	-	-
PACIFIC	1,748	1,767	865	763	276	261	1	-	-	-
Wash.	186	147	69	41	23	8	-	-	N	N
Oreg.	161	143	38	36	N	N	N	N	N	N
Calif.	1,321	1,352	752	664	225	227	N	N	N	N
Alaska	38	26	4	2	-	-	-	-	N	N
Hawaii	42	99	2	20	28	26	1	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	47	144	1	11	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending May 31 , 2003, and June 1, 2002 (22nd Week)*

Reporting area	Syphilis: Primary & secondary Cum. 2003	Syphilis: Primary & secondary Cum. 2002	Syphilis: Congenital Cum. 2003	Syphilis: Congenital Cum. 2002	Tuberculosis Cum. 2003	Tuberculosis Cum. 2002	Typhoid fever Cum. 2003	Typhoid fever Cum. 2002	Varicella (Chickenpox) Cum. 2003
UNITED STATES	2,736	2,641	138	180	3,515	4,936	100	133	5,998
NEW ENGLAND	78	38	1	-	101	167	6	9	1,025
Maine	4	-	1	-	4	6	-	-	568
N.H.	8	-	-	-	5	6	-	-	-
Vt.	-	1	-	-	3	1	-	-	367
Mass.	53	26	-	-	60	79	1	7	87
R.I.	8	1	-	-	8	24	2	-	3
Conn.	5	10	-	-	21	51	3	2	-
MID. ATLANTIC	313	284	22	26	765	873	17	32	5
Upstate N.Y.	14	11	4	1	94	129	3	3	N
N.Y. City	167	168	11	10	450	415	7	15	-
N.J.	65	52	7	14	139	207	6	9	-
Pa.	67	53	-	1	82	122	1	5	5
E.N. CENTRAL	383	521	34	29	439	476	9	15	3,031
Ohio	98	58	2	-	77	70	1	4	776
Ind.	18	25	5	1	49	46	4	1	-
Ill.	130	196	11	23	207	241	-	5	-
Mich.	129	232	16	5	91	90	4	3	1,856
Wis.	8	10	-	-	15	29	-	2	399
W.N. CENTRAL	71	47	2	-	168	228	1	6	25
Minn.	20	20	-	-	70	95	-	3	N
Iowa	4	2	-	-	11	14	1	-	N
Mo.	26	10	2	-	16	67	-	1	-
N. Dak.	-	-	-	-	-	3	-	-	25
S. Dak.	-	-	-	-	12	10	-	-	-
Nebr.	1	5	-	-	14	9	-	2	-
Kans.	20	10	-	-	45	30	-	-	-
S. ATLANTIC	730	633	28	40	687	982	25	15	1,181
Del.	4	8	-	-	-	7	-	-	9
Md.	116	69	3	5	85	96	6	3	-
D.C.	22	19	1	1	-	-	-	-	7
Va.	35	26	1	1	67	103	10	-	301
W. Va.	-	-	-	-	9	9	-	-	738
N.C.	71	132	9	9	95	122	4	-	N
S.C.	47	54	3	4	55	60	-	-	126
Ga.	151	119	2	9	87	188	3	4	-
Fla.	284	206	9	11	289	397	2	8	N
E.S. CENTRAL	144	251	10	13	266	311	3	2	-
Ky.	21	41	1	2	47	56	-	2	N
Tenn.	62	100	4	4	80	114	1	-	N
Ala.	54	82	4	5	105	94	2	-	-
Miss.	7	28	1	2	34	47	-	-	-
W.S. CENTRAL	342	337	22	42	270	791	-	13	448
Ark.	19	17	-	2	42	53	-	-	-
La.	35	51	-	-	-	-	-	-	3
Okla.	21	26	-	1	58	62	-	-	N
Tex.	267	243	22	39	170	676	-	13	445
MOUNTAIN	112	135	13	7	103	137	3	6	283
Mont.	-	-	-	-	-	4	-	-	N
Idaho	6	1	-	-	1	2	-	-	N
Wyo.	-	-	-	-	2	2	-	-	25
Colo.	7	20	2	1	26	32	3	3	-
N. Mex.	20	14	-	-	-	18	-	-	-
Ariz.	70	93	11	6	55	61	-	-	2
Utah	4	2	-	-	13	12	-	2	256
Nev.	5	5	-	-	6	6	-	1	-
PACIFIC	563	395	6	23	716	971	36	35	-
Wash.	31	20	-	1	89	92	2	3	-
Oreg.	15	5	-	-	30	40	2	2	-
Calif.	516	365	6	22	561	755	32	30	-
Alaska	-	-	-	-	24	24	-	-	-
Hawaii	1	5	-	-	12	60	-	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	65	98	1	14	-	33	-	-	115
V.I.	-	1	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending May 31, 2003 (22nd Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	425	279	101	26	13	6	46
Boston, Mass.	126	81	31	7	5	2	9
Bridgeport, Conn.	32	23	8	1	-	-	2
Cambridge, Mass.	15	15	-	-	-	-	2
Fall River, Mass.	19	13	6	-	-	-	2
Hartford, Conn.	36	18	10	5	2	1	8
Lowell, Mass.	14	8	5	1	-	-	1
Lynn, Mass.	13	9	3	1	-	-	-
New Bedford, Mass.	21	18	2	1	-	-	4
New Haven, Conn.	34	17	12	2	3	-	5
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	U	U	U	U	U	U	U
Springfield, Mass.	37	24	9	4	-	-	4
Waterbury, Conn.	25	18	5	1	1	-	2
Worcester, Mass.	53	35	10	3	2	3	7
MID. ATLANTIC	2,191	1,503	472	145	42	25	113
Albany, N.Y.	44	35	7	2	-	-	4
Allentown, Pa.	18	11	5	2	-	-	-
Buffalo, N.Y.	106	80	19	2	1	4	6
Camden, N.J.	26	18	3	3	2	-	1
Elizabeth, N.J.	14	9	2	2	-	1	-
Erie, Pa.	47	38	8	-	1	-	5
Jersey City, N.J.	29	21	6	1	-	1	-
New York City, N.Y.	1,073	736	239	72	15	7	52
Newark, N.J.	54	26	19	7	1	1	2
Paterson, N.J.	15	5	7	1	1	1	-
Philadelphia, Pa.	418	255	107	38	13	5	17
Pittsburgh, Pa.§	16	14	-	-	2	-	1
Reading, Pa.	22	18	3	1	-	-	-
Rochester, N.Y.	123	95	16	5	3	4	8
Schenectady, N.Y.	22	16	4	2	-	-	4
Scranton, Pa.	21	18	2	1	-	-	-
Syracuse, N.Y.	81	65	13	2	-	1	10
Trenton, N.J.	27	20	3	2	2	-	-
Utica, N.Y.	15	9	4	2	-	-	2
Yonkers, N.Y.	20	14	5	-	1	-	1
E.N. CENTRAL	1,927	1,297	406	118	47	59	108
Akron, Ohio	2	2	-	-	-	-	2
Canton, Ohio	40	28	8	1	1	2	4
Chicago, Ill.	348	215	77	27	11	18	21
Cincinnati, Ohio	89	61	16	6	3	3	17
Cleveland, Ohio	108	73	26	5	1	3	-
Columbus, Ohio	179	118	43	13	3	2	12
Dayton, Ohio	122	82	28	11	-	1	8
Detroit, Mich.	152	85	50	11	4	2	11
Evansville, Ind.	38	24	11	3	-	-	1
Fort Wayne, Ind.	61	39	16	4	2	-	-
Gary, Ind.	19	9	6	2	2	-	2
Grand Rapids, Mich.	60	47	7	3	-	3	5
Indianapolis, Ind.	259	174	43	14	13	15	9
Lansing, Mich.	46	37	7	-	-	2	1
Milwaukee, Wis.	101	67	20	7	3	4	7
Peoria, Ill.	40	33	6	-	1	-	-
Rockford, Ill.	59	43	12	2	1	1	1
South Bend, Ind.	54	44	7	2	-	1	2
Toledo, Ohio	90	66	14	6	2	2	5
Youngstown, Ohio	60	50	9	1	-	-	-
W.N. CENTRAL	508	348	99	32	16	13	37
Des Moines, Iowa	53	38	14	-	1	-	4
Duluth, Minn.	23	22	1	-	-	-	-
Kansas City, Kans.	38	18	13	5	2	-	7
Kansas City, Mo.	83	57	16	3	3	4	3
Lincoln, Nebr.	49	39	8	2	-	-	5
Minneapolis, Minn.	65	41	10	7	3	4	2
Omaha, Nebr.	66	43	14	4	2	3	5
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	51	36	12	3	-	-	3
Wichita, Kans.	80	54	11	8	5	2	8
S. ATLANTIC	1,029	637	249	91	31	21	64
Atlanta, Ga.	113	63	27	12	7	4	-
Baltimore, Md.	172	92	44	26	7	3	18
Charlotte, N.C.	103	70	24	4	3	2	6
Jacksonville, Fla.	109	66	30	10	2	1	7
Miami, Fla.	81	52	20	7	1	1	7
Norfolk, Va.	41	28	6	4	-	3	1
Richmond, Va.	49	29	14	2	2	2	4
Savannah, Ga.	55	37	15	3	-	-	4
St. Petersburg, Fla.	44	29	10	2	3	-	4
Tampa, Fla.	147	102	31	10	3	1	8
Washington, D.C.	99	58	26	9	2	4	2
Wilmington, Del.	16	11	2	2	1	-	3
E.S. CENTRAL	699	449	157	49	20	22	51
Birmingham, Ala.	158	102	34	8	5	7	11
Chattanooga, Tenn.	53	43	8	-	-	2	3
Knoxville, Tenn.	U	U	U	U	U	U	U
Lexington, Ky.	93	54	27	6	3	3	10
Memphis, Tenn.	196	126	44	16	5	5	11
Mobile, Ala.	48	32	7	5	1	3	3
Montgomery, Ala.	16	11	3	1	1	-	2
Nashville, Tenn.	135	81	34	13	5	2	11
W.S. CENTRAL	1,242	781	259	104	56	41	66
Austin, Tex.	75	49	17	6	1	2	2
Baton Rouge, La.	37	28	5	1	3	-	-
Corpus Christi, Tex.	43	35	4	1	2	-	3
Dallas, Tex.	178	106	44	16	6	6	9
El Paso, Tex.	64	43	13	5	-	3	5
Ft. Worth, Tex.	99	57	21	8	5	8	5
Houston, Tex.	287	152	70	32	25	8	14
Little Rock, Ark.	59	41	11	3	2	2	3
New Orleans, La.	51	31	10	6	4	-	-
San Antonio, Tex.	214	141	44	15	6	8	10
Shreveport, La.	36	26	4	3	1	2	2
Tulsa, Okla.	99	72	16	8	1	2	13
MOUNTAIN	700	482	132	62	12	10	50
Albuquerque, N.M.	94	71	16	4	1	2	9
Boise, Idaho	37	26	7	1	2	1	3
Colo. Springs, Colo.	59	43	10	5	1	-	5
Denver, Colo.	98	69	18	9	1	1	6
Las Vegas, Nev.	243	151	56	29	-	5	9
Ogden, Utah	30	23	1	6	-	-	3
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	28	22	3	1	2	-	5
Salt Lake City, Utah	111	77	21	7	5	1	10
Tucson, Ariz.	U	U	U	U	U	U	U
PACIFIC	1,466	1,019	309	91	24	23	126
Berkeley, Calif.	11	6	2	1	1	1	1
Fresno, Calif.	83	59	15	6	1	2	7
Glendale, Calif.	22	14	5	3	-	-	1
Honolulu, Hawaii	78	64	14	-	-	-	6
Long Beach, Calif.	61	45	13	-	3	-	8
Los Angeles, Calif.	340	235	72	24	3	6	29
Pasadena, Calif.	19	13	4	1	-	1	2
Portland, Oreg.	106	60	30	12	1	3	5
Sacramento, Calif.	149	102	35	8	4	-	22
San Diego, Calif.	117	85	22	8	2	-	12
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	178	124	38	7	4	5	14
Santa Cruz, Calif.	34	27	5	1	1	-	5
Seattle, Wash.	112	69	27	10	4	2	3
Spokane, Wash.	53	43	6	3	-	1	5
Tacoma, Wash.	103	73	21	7	-	2	6
TOTAL	10,187¶	6,795	2,184	718	261	220	661

U: Unavailable. -:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

§ Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶ Total includes unknown ages.

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